INTERNATIONAL SEARCH REPORT

International application No.
PCT/NO 2004/000321

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H01M 4/86, H01M 8/18, H01M 8/08, H01M 4/88, C01B 3/00
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6258482 B1 (MASUTAKA OUCHI ET AL), 10 July 2001 (10.07.2001), claim 1, abstract ---	1-37
A	US 6620539 B2 (STANFORD R. OVSHINSKY ET AL), 16 Sept 2003 (16.09.2003), claims 21-35, abstract ---	1-37
A	US 20020064709 A1 (STANFORD R. OVSHINSKY ET AL), 30 May 2002 (30.05.2002), page 4, line 7 - line 39, figure 2, abstract ---	1-37

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
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"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21 January 2005	24 -01- 2005
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Ulrika Nilsson/ELY Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NO 2004/000321

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 009, no. 204, 21 August 1985 (1985-08-21) & JP 60 070665 A (MATSUSHITA DENKI SANGYO KK), 22 April 1985 (1985-04-22) abstracts --	1-37
A	PATENT ABSTRACTS OF JAPAN vol. 017, no.668, 9 December 1993 (1993-12-09) & JP 52 25975 A (FURUKAWA BATTERY CO LTD), 3 September 1993 (1993-09-03) abstract -- --------	1-37

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PATENT ABSTRACTS OF JAPAN

(11)Publication number : **05-225975**
(43)Date of publication of application : **03.09.1993**

(51)Int.CI. H01M 4/38
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C23G 1/10
H01M 4/24

(21)Application number : **04-075114** (71)Applicant : **FURUKAWA BATTERY CO LTD:THE**
(22)Date of filing : **13.02.1992** (72)Inventor : **FURUKAWA ATSUSHI**

(54) HYDROGEN STORAGE ALLOY ELECTRODE

(57)Abstract:
PURPOSE: To improve initial discharge capacity, and reduce charging and discharging cycles necessary for initial activation to improve productivity by using hydrogen storage alloy particles after treatment and removal of an oxide film with hydrochloric acid.
CONSTITUTION: Each powder of Misch metal, nickel, cobalt and aluminum is so measured and mixed as to obtain the predetermined composition ratio, dissolved under heating by an arc melting method, and cooled, thereby forming a hydrogen storage alloy ingot. Thereafter, the ingot is pulverized to form hydrogen storage alloy powder comprising grains of 250-mesh size or less. Then, the alloy powder is immersed in hydrochloric acid having the predetermined concentration, a trace of oxide films generated on the surface of the alloy, for example, films of lanthanum oxide, lanthanum hydroxide, or the like is removed and, then, the alloy is subjected to a washing and drying process. A hydrogen storage alloy electrode comprising the hydrogen storage alloy particles after treatment and removal of the oxide film with hydrochloric acid is improved in initial discharge capacity at the time of manufacturing an H-M battery, and the number of charging and discharging cycles necessary for initial activation can be reduced, thereby enabling productivity to be improved.

LEGAL STATUS

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PATENT ABSTRACTS OF JAPAN

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(43)Date of publication of application : **22.04.1985**

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(21)Application number : **58-178501**
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(71)Applicant : **MATSUSHITA ELECTRIC IND CO LTD**
(72)Inventor : **KAWANO HIROSHI**
IKOMA MUNEHISA
YANAGIHARA NOBUYUKI

(54) ELECTRODE WHICH CAN ABSORB HYDROGEN

(57)Abstract:
PURPOSE: To increase the life of an electrode for an alkaline storage battery by using as an alloy powder which can absorb and discharge hydrogen and which has specified grain diameters.
CONSTITUTION: An alloy consisting of a Ti-Ni alloy or the like composed of Ti and Ni in an atomic ratio of 2:1 and has the property of electrochemically absorbing and discharging hydrogen is prepared by fusion. The thus prepared alloy is crushed into a powder with grain diameters of 25μm or below. The thus prepared alloy powder is mixed with ethyl alcohol to make a muddy mixture which is then packed into a foamy porous nickel body or the like. The thus obtained body is then dried and pressed before being sintered, thereby making an electrode which can absorb hydrogen. By using this electrode, it is possible to constitute a non-polluting alkaline storage battery of a high energy density.

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